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Special bulletin no. 09 (1921, September); Depreciation for brick manufacture; Wholesale bakeries; Taxicabs; Steamship companies; Funded debt; By-products; Non-par value shares; Dividends; Mortgages

American Institute of Accountants. Library and Bureau of Information

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SPECIAL BULLETIN No. 9

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[The Committee on Administration of Endowment authorizes the publication of special Bulletins, of which this is one, on the distinct understanding that members are not to consider answers given to questions as being official pronouncements of the Institute, but merely the individual opinions of accountants to whom the questions were referred. It is earnestly requested that members criticise freely and constructively the answers given in this or any other Bulletin of this series.]

DEPRECIATION FOR BRICK MANUFACTURE

Q. Kindly forward any data you may have in connection with prevailing rates of depreciation of equipment and plant used in the manufacture of bricks.

A. The library has received the following answer to your question:

In reply to your letter would say that, recently, the following rates were used by us after consultation with and the approval of the president and superintendent of one of the largest construction companies in the country. Both these men had extensive experience in the manufacture of bricks.

Machinery and equipment:	
Pugmills, grinding pans, brick machines, etc.	10%
Engine and boiler house machinery	7½
Steam shovel and quarry machinery	10
Trucks and loading equipment	20
Loose tools, etc., to be inventoried.	
Buildings:	
Periodic kilns, subject to the strain of continuous reheating and cooling off	10%
Continuous heat kilns	7½
Drying tunnels	5
Sheds and outbuildings	20

The above rates were, of course, based on the actual conditions encountered and these would not necessarily be found in every plant. I believe, however, that they may be taken as a fair guide.

The machinery and buildings peculiar to a brick plant will be found to be of a rapidly depreciating nature. Periodic kilns especially, owing to the repeated heating and cooling off, soon get into a state where their residual value is negligible and their usefulness is only maintained by heavy repairs. Such repairs or the repairs of small or rapidly wearing parts of machines are not included in the above rates.

An accurate rate, however, can only be decided upon after a study of local conditions. In another plant a straight rate of 10 per cent. was used on all plant and equipment, including building, but this is not considered a proper method.

I know of no approval that has been officially given by the commissioner of internal revenue to rates of this sort.

WHOLESALE BAKERIES

Q. Can you furnish me with information which will show the methods used in distributing the labor cost in a large wholesale bakery making a line of cakes and various kinds of pastry, some of which will be made in large batches and some in very small batches, in some instances only one cake of a kind constituting an order?

There is no feasible way that I have discovered of collecting the labor cost of the work being done, because the employees change frequently from one job to another, in many cases not being on a given job for more than five or ten minutes.

The material used does not seem to suggest any feasible basis of distribution because some large and costly mixes can be prepared in the same length of time as is required for small and inexpensive mixes.

Our client very earnestly desires to obtain a practical cost on all of the important items coming from the bakery. He informed us that whenever this has been tried, the question of labor distribution has proved an obstacle which could not be overcome.

If you can give me any information out of the experience of others who have had such a problem, it will be very much appreciated.

A. On receipt of your letter we referred it to one of the best bakery accountants of whom we have knowledge, and are today in receipt of his advice as follows:

I am afraid that the person seeking to get detailed labor costs on bakery products is doomed to disappointment, that is, if he wishes to distribute the payroll over each of the varieties of goods made.

As an illustration, I cite one of our plants, employing about twenty men in the bakeshop. This plant manufactured some 250 varieties of cakes, pies, tarts and doughnuts daily. Take the question of labor cost on fillings alone; some fillings are almost ready for use when bought, others are prepared almost entirely in the shop. Usually a quantity is prepared at one time. This particular filling may be used in thirty or forty varieties of goods in different quantities. Part of the filling may be used in preparing some other kind of filling. Again, a pie dough is mixed. It may be used on a dozen kinds of pies and several different sizes of each kind; or, part of it may be used for an entirely different purpose, such as dough for tarts. The work is so interrelated that time accuracy cannot be obtained.

Most shops making a full line divide their payroll as between bread, cake, pie and fried goods workers. In the bread shop a further distribution is possible between superintendence, mixers, bench hands, ovenmen and general helpers. Except in large shops, however, bench hands or helpers are apt to be used on the oven as well as on their own work.

The only way to determine the cost of an individual batch is to actually time the work expended in mixing, moulding, filling and baking the goods. Even this is more or less approximate, as in a sanitary shop cleanliness is next to godliness, if it does not even precede it, and the cost of keeping the floors, machines, pans and equipment clean must be estimated. To get exact costs on each batch of goods would be so difficult that it would cost more than it was worth.

If I had reason to believe that an article was not properly priced, the test made was to actually superintend the weighing of the raw materials entering into the batch (although we had control of this in another way), time the labor by kinds of labor, add the estimated indirect labor, estimated cost of operation for coal, light, rent or shop space and depreciation of machinery, and the cost of wrapping, the total of which would give me the cost of the batch of goods delivered to the shipping room. I usually made at least three such tests before using the figures. Percentage cost of delivery and general overhead was always known, so that these figures would give me approximate results.

I believe this is about the best that can be done with the matter. I have never heard of anything further than this being attempted with sweet goods, although with bread it is in some cases possible to approximately separate different kinds.

TAXICABS

Q. What is the depreciation on taxicabs?

A. The opinion we have received regarding the rate of depreciation for taxicabs is 33⅓ per cent.

STEAMSHIP COMPANIES

Q. I should be obliged if you will kindly give your advice on the following question:

A steamship company keeping its accounting costs with a voyage as a unit, dry-docks its vessel for annual overhaul and distributes the cost of repairs over the voyages since the previous overhaul, on the basis of the time occupied on each voyage.

In addition, the vessel is frequently laid up for extraordinary repairs between the annual overhauls. It has been the practice of the company to charge such repairs to the voyage during which they were made, despite the fact that part or the whole of the damages may have accumulated during prior voyages. This results in an unfair distribution of this expense and upsets the comparison desired in keeping the accounts on the voyage unit basis.

A. It probably is the case that most steamship companies follow the practice of charging the voyage accounts only with those expenses which pertain directly to the voyage operations. For statistical purposes extraordinary expenses and the cost of overhauls may be spread at a later date.

If it were feasible to do so, it would be more scientific to charge to each voyage a reserve which would be sufficient to cover that voyage's proportion of annual overhaul.

It would be better still if a rate of depreciation could be arrived at which would be sufficient to cover obsolescence as well as actual depreciation and to apply a proportionate amount of this depreciation against the voyage account. If the rate could be fixed with a sufficient degree of accuracy so that it would cover extraordinary repairs and overhauls which, presumably, would have the effect of prolonging the life of the vessel, then such charges might be made against the reserve account.

FUNDED DEBT

Q. Excluding from consideration the obvious definition that the funded debt of a company represents its obligations maturing at a date more than one year subsequent to the date of the balance-sheet, can you give me a real definition of funded debt?

On a balance-sheet as at Dec. 31, 1920, is it not proper to include under the "Funded Indebtedness" caption, mortgage bonds maturing June 30, 1921, providing the date of maturity is plainly indicated on the balance-sheet? To class such obligations as current liabilities might conceivably result in misunderstandings as to the company's financial situation.

In the case of serial equipment notes secured by a chattel mortgage on the property which is being acquired under a three-year rental contract, under what caption should these notes be stated on the balance-sheet? The notes are of equal amounts and mature monthly over a period of 3 years and the equipment remains the property of the mortgagee until the last note is paid. I took the position that these notes were neither funded nor current indebtedness in the ordinary sense and placed them on the balance-sheet between the funded indebtedness and current liabilities under the caption of "three-year serial equipment notes." In the case in question I was dealing with a public utility and the matter of the ratio of current assets to current liabilities was relatively unimportant. I have been advised that had I met with such a situation in the audit of an industrial, it would have been desirable to split the serial note issue into two parts and to show as a current liability the equipment notes maturing within twelve months from the date of the balance sheet.

A. The library has received the following answer to your question:

In my opinion, even though the bonds mature June 30, 1921, they should nevertheless be carried under the caption of funded indebtedness in the balance-sheet as of December 31, 1920. It is sufficient if the date of maturity is stated plainly. The amount is no less a funded debt because the date of maturity happens to be near at hand. On or before becoming due provision may be made for refunding it so that it may never be a current liability.

As to the three-year serial equipment notes, I believe it to be entirely proper to state them in the manner described in the qustion, i. e., to place them after the current liabilities under the caption, "three-year serial equipment notes." In this case also, it is obvious that the terms of the notes should be stated in such a manner that the amount payable in the near future will be indicated clearly. As a practical matter, it seems to me preferable to set them forth in one item rather than separate them into two accounts; one the early maturities which would be included in current liabilities, and the remainder which would be carried under the note caption.

It is nevertheless true that some accountants might consider it necessary to enter those which will mature at a comparatively early date in with the current liabilities. Reserves for federal taxes, for instance, are usually carried with the current liabilities, although no part of the amount is payable until 2½ months after the close of the fiscal year.

Such seeming inconsistencies as this, viz., including reserve for taxes in current liabilities and allowing notes, which will mature within six or twelve months, to remain under the equivalent of a funded debt caption, are met with in accounting. The factor of more vital importance than exact uniformity or consistency to my mind is the disclosure of full information. If the balance-sheet cannot be criticized from that point of view, I believe all the essential requirements are complied with, even if, as in the case mentioned, all the notes remain under the one caption, even though part of them may be due within a comparatively short time.

I see no reason why they should be dealt with differently in an industrial balance-sheet as distinguished from that of a public utility. In a consolidated balance-sheet, in which there were long-term notes in some companies and bonds of a more or less distant date of maturity in others, I have entered them all under the general heading of "funded and long-term debt." Under this general caption were stated, of course, the various issues showing the character of the obligation and its maturity.

BY-PRODUCTS

Q. We desire to secure some information as to the usual accounting procedure adopted by recognized accounting authorities in recording the cost of net profit of by-products, particularly as they affect the soap manufacturing industry which produces the by-product of glycerine.

It is desired to secure in full, and if possible, a statement from recognized authorities, as to whether in a case where it is impossible to properly allocate the actual cost of producing a by-product as against the cost of producing the soap, the sales of the by-product should be recorded in the year in which they are actually sold, as it is possible, in some instances, that although the soap as manufactured is sold within a reasonable period after manufacture, owing to the steady demands for soap, the by-product would be compelled to await future demand, which is very unsteady, and cannot be ascertained or anticipated with any degree of correctness.

The main point on which we desire enlightenment is as to whether the income on the by-product should await the sale of the by-product or as to whether the by-product on hand at the end of each year should be inventoried at an estimated cost (the actual cost being indeterminable) and the cost of the main product be credited with the estimated cost or market value of the by-product.

A. Some by-products, so-called, are of such minor importance and value that the amount realized from them is deducted from the cost of producing the major product. In other cases, the by-product becomes a greater factor by the introduction, perhaps, of other ingredients and in that event may be of sufficient magnitude to warrant its being treated as a product standing by itself on which its own profit or loss would be determined. In that case, the cost, as nearly as it can be determined, of the element derived from the manufacture of the major product will be credited to that product and charged against the by-product account.

It really makes very little difference, however, whether the by-product is of greater or less importance as respects the cost of the major product, except that in one case the cost would be deducted from the cost of the major product, and, in the other case, the realization from the sale of the by-product would be deducted from the major product cost.

In the latter case it would seem that there would be no difference in treatment between such a by-product and scrap that might accumulate as a result of manufacturing process. In some operations, such as stamping out articles from brass sheets, a comparatively small part of the metal remains in the finished product and the scrap accumulations are very large. Obviously, the cost of the product cannot be determined until credit is allowed for these scrap accumulations.

The same principle would seem to be true of by-products. The cost of the major product cannot be determined accurately until credit is given for whatever value the by-product may have. There seems to be no reason why the reduction in cost, or so-called income from the by-product, should await its sale any more than credit would not be allowed on scrap until it is sold. If any is on hand at the end of the year, in our opinion, it should be inventoried at a fair market value as nearly as that can be determined. If it is to be sold, it should be inventoried at cost, if that is less than market value, if the cost can be determined, and it is to be used with other ingredients in making a minor product to be marketed in due course.

NON-PAR VALUE SHARES

Q. I would appreciate it very much if you would advise me what experience members of the institute have had in regard to the proper handling of non-par value shares for a corporation.

We have a client who has had one thousand (1,000) shares of stock, par value $100.00 outstanding, and a surplus of approximately $150,000.00. The company is reorganizing, changing to non-par value stock. Should the surplus of $150,000.00 be closed into the capital account?

We are of the opinion that it should be unless the client has a reason to the contrary. We are also of the opinion that the profits for subsequent years should be carried into a surplus account so as to be a guide to the management and in this way avoid impairing the original capital stock by declaring dividends in excess of accumulated earnings since the reorganization. If the client desires to declare a dividend at the time of reorganization, this amount should be held in the surplus account and not closed into the capital account.

A. It is optional whether or not the surplus in question be transferred to the capital account.

There is no particular advantage in so doing.

On the contrary there is the possible disadvantage that if profits after the change in form of stock are not sufficient for dividend requirements and the previous surplus has been transferred to capital and such amount stated in the certificate as the capital with which the corporation will carry on business, the corporation presumably may not then use any of such former surplus without violating section 20, paragraph 2, of the New York Stock Corporation Law, as follows:

> "No such corporation shall declare any dividend which shall reduce the amount of its capital below the amount stated in the certificate as the amount of capital with which the corporation shall carry on business."

If the corporation desires to declare a dividend at time of reorganization or has reason to believe the surplus at time of reorganization will be required for future dividends, the amount of the surplus should be allowed to remain in the surplus account.

Profits subsequent to reorganization should be closed into a surplus account against which dividends should be charged.

DIVIDENDS

Q. A corporation expected to go into a proposed consolidation about ten years ago. The deal did not go through. This corporation had had an appraisal made which showed the value of the building and machinery as being $200,000 in excess of the book figures. This appreciation was placed upon the books at that time. This amount cannot be included in computing invested capital under the federal income-tax laws.

Owing to the heavy slump in prices at this time, it appears that the surplus account may be cut down below the amount of appreciation, viz., $200,000.

Now then; what New York state laws govern whether dividends may, or may not, be paid out of this unearned profit in the surplus account?

Since that time a stock dividend has been declared which dividend was over the amount of the $200,000. How would that affect the situation?

A. In reply to your letter, in which you recite a question as to the legitimacy of drawing upon surplus created through recording the appreciation in value of buildings and machinery to the extent of $200,000.00. In our opinion—which may not, however, be the opinion of lawyers—the distribution of such a surplus fund, the earnings of the business having previously been distributed, would constitute an impairment of capital such as is in violation of the generally accepted fundamental principle that dividends may not be paid except out of earned profits, and in violation particularly of section 28 of the Stock Corporation Law of New York State, the first sentence of which reads as follows:

> "The directors of a stock corporation shall not make dividends, except from the surplus arising from the business of such corporation, nor divide, withdraw or in any way pay to the stockholders or any of them, any part of the capital of such corporation, or reduce its capital stock, except as authorized by law."

In the case you cite, however, a stock dividend has been declared in excess of the amount of the $200,000.00 appreciation and it is only logical to assume that the stock dividend was first intended to capitalize the accretion in value of the capital assets. If the directors in their declaration designated the appreciation as the source from which the stock dividend was drawn, there could have been no question about it, as the intention of the company would be controlling in this matter, but even without such a specific declaration we think it would be generally admitted that the appreciation had been converted into capital stock through the stock dividend—if for no other reason because it could not be distributed.

It, therefore, appears that in the question proposed the company is not obliged to maintain a surplus equal to the amount of the appreciation of property accounts previously written up, but may distribute the remaining surplus below the amount of such appreciation.

MORTGAGES

Q. A second mortgage company buys $1,000.00 mortgage for $800.00, due in two years from date of purchase, thereby earning $200.00, the payments to be made on a monthly basis.

From a good accounting standpoint, as well as a federal income-tax standpoint, we desire to obtain your opinion as to how this should be entered on the books, that is

(a) Should it be set up at a cost in the mortgage account of $800.00, the monthly payments being applied against the principal until the full $800.00 is paid and the last $200.00 being all earned and recorded on the books as an earning the dates upon which the last $200.00 is actually paid?

(b) Should the mortgage be set up at net cost, namely, $800.00, a proportion of each payment upon principal being considered a proportion of the earning of $200.00, thereby evenly distributing the earning as the payments are made?

(c) Should the mortgage be set up at gross, namely, $1,000.00, and set forth a $200.00 earning in a deferred account, applying a proportion of that earning equally over the period of two years according to the payments being made or regardless of how the payments are made?

Are any of the three methods given above commendable, practical, and advisable to put in use. If you have other suggestions as to the proper procedure for a second mortgage company, we would greatly appreciate your advice as to the best method of maintaining that class of records.

A. All three of the alternative methods suggested in the question of your correspondent have been used in cases similar to that stated in the question.

Procedure A is similar to that commonly approved by the probate courts for use in the case of estates. The general practice in the case of estates, or trust funds, is to treat as an investment of principal the amount actually paid for an investment, in the present instance $800 for the $1,000 second mortgage, and when the liquidation of the investment is completed, to treat the realization of the discount as a profit at that time. Of course, in the case of estates or other trusts, this profit is added to the principal account, whereas in the case of a mortgage company it would naturally merge with other earnings and find its way to surplus.

Procedure B is that which would appear to be most in accord with the intent of the treasury department regulations. On the other hand, we doubt whether the treasury would object to procedure A in the case where a second mortgage company pursued a consistent policy of taking up as an earning a discount only at the final liquidation of each mortgage. Of course, if the full amount of the investment were returned prior to the last payment, naturally as soon as the $800 had been repaid the company would begin reporting the remaining collections of principal as taxable income, as well as profits for its earning statement.

Procedure C is analogous to that now followed by most banks in their treatment of discounts on notes receivable discounted. The face amount of the note is entered among the assets, and the discount is treated as a deferred earning, a part thereof being taken up as income in each fiscal period so that the discount has all been absorbed in the earning accounts by the time the note matures.

While under procedures B and C the statement of the transaction differs slightly from a balance-sheet standpoint, the effect on the statement of earnings and the tax returns is identical under the two modes of procedure. From the earnings standpoint it is, in effect, that which is also followed by insurance companies using the amortization basis of bond valuation which is permitted by the insurance department of various states.

Procedure A is, of course, the most conservative of the three, and since the investments for which the procedure is being determined are not gilt-edged securities, but investments of a more speculative character, as is indicated by the amount of discount used in the illustration, the most conservative manner of treating the subject in the accounts would seem preferable.